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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,830	10/30/2003	William J. Allen	10015701-1	9261

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EXAMINER

HASAN, MOHAMMED A

ART UNIT PAPER NUMBER

2873

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/697,830

Applicant(s)

ALLEN, WILLIAM J.

Examiner

Mohammed Hasan

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 32 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 5 - 7, 9, 10, 14, 18 - 20, 22, 23 and 27 - 32 is/are rejected.
- 7) ☒ Claim(s) 2 - 4, 8, 11- 13, 15 - 17, 21, 24 - 26 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/3003, 2/17/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Oath/Declaration

1. Oath and declaration filed on 10/30/2003 is accepted.

Information Disclosure Statement

2. The prior art documents submitted by applicant in the Information Disclosure Statement filed on 10/30/2003 and 2/17/2004 have all been considered and made of record (note the attached copy of form PTO – 1449).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 5 – 7, 9, 10, 14, 18 – 20, 22, 23, and 27 - 32 are rejected under 35

U.S.C 102 (e) as being anticipated by Roddy et al (6,574,032 B1).

Regarding claim 1, Roddy et al discloses (refer to figure 1 and 2a), a system for displaying an image the system (10) comprising: a first light modulator (30r) including a first pixel array oriented at a first angle and at least a second light modulator (30g) including a second pixel array oriented at a second angle different from the first angle, wherein the first pixel array is adapted to produce a first image portion oriented at the first angle and the second pixel array is adapted to produce a second image portion oriented at the second angle (i.e., a spatial light modulator 30 (e.g., a modulator 30r, a modulator 30g, and a modulator 30b) have a pixel area 72, which is an array form, and each of the modulator set forth in an different angle as shown in figure 1) and wherein the first image portion and the second image portion are combined (i.e., combiner 26) to display image (i.e., display surface (26) (column 5, lines 21 – 52, column 10, lines 6 – 9).

Regarding claim 5, Roddy et al discloses, wherein the first image portion includes a first color (r) and the second image portion includes a second color (g) and a third color (b) of the image (column 5, lines 31 – 32).

Regarding claim 6, Roddy et al discloses, wherein the first color of the image includes red (r), the second color of the image includes green (g) and the third color of the image includes blue (b) (column 5, lines 31 – 32).

Regarding claim 7, Roddy et al discloses (refer to figure 1) a third light modulator (30 b) including a third pixel array (72) oriented at a third angle different from the first angle and the second angle (i.e., a spatial light modulator 30 (e.g., a modulator 30r, a modulator 30g, and a modulator 30b) have a pixel area 72, which is an array form, and

each of the modulator set forth in an different angle as shown in figure) wherein the third pixel array is adapted to produce a third image portion oriented at the third angle and wherein the first image portion and the second image portion and the third image portion are combined to display image (i.e., display surface 36).

Regarding claim 9, Roddy et al discloses, wherein the first image portion includes a first color (r) and the second image portion includes a second color (g) and a third color (b) of the image (column 5, lines 31 – 32).

Regarding claim 10, Roddy et al discloses, wherein the first color of the image includes red (r), the second color of the image includes green (g) and the third color of the image includes blue (b) (column 5, lines 31 – 32).

Regarding claim 14, Roddy et al discloses (refer to figure 1 and 2a) a method of displaying an image the method comprising: producing a first image with a first pixel array (72) oriented at a first angle , producing a second image portion with a second pixel array (72) oriented at a second angle different from the first angle (i.e., a spatial light modulator 30 (e.g., a modulator 30r,a modulator 30g, and a modulator 30b) have a pixel area 72 , which is an array form , and each of the modulator set forth in an different angle as shown in figure 1) and combining the first image and the second image portion to display the image (i.e display surface 36) (column 5, lines 21 – 52).

Regarding claim 18, Roddy et al discloses, wherein the first image portion includes a first color (r) and the second image portion includes a second color (g) and a third color (b) of the image (column 5, lines 31 – 32).

Regarding claim 19, Roddy et al discloses, wherein the first color of the image includes red (r) , the second color of the image includes green (g) and the third color of the image includes blue (b) (column 5, lines 31 – 32).

Regarding claim 20, Roddy et al discloses (refer to figure 1) producing a third image portion with a third pixel array (72) oriented at a third angle different from the first angle and the second angle (i.e., angle is different, as shown in figure) wherein combining the first image portion and the second image portion further includes combining the first image portion and the second image portion and the third image portion to display image (i.e., display surface 36) (column 5, lines 21 – 52).

Regarding claim 22, Roddy et al discloses, wherein the first image portion includes a first color (r) and the second image portion includes a second color (g) and a third color (b) of the image (column 5, lines 31 – 32).

Regarding claim 23, Roddy et al discloses, wherein the first color of the image includes red (r) , the second color of the image includes green (g) and the third color of the image includes blue (b) (column 5, lines 31 – 32).

Regarding claim 27, Roddy et al discloses, a system for displaying an image, the system comprising: means for producing a first image portion oriented at a first angle, means for producing a second image portion oriented at a second angle different from the first angle and means for combining the first image portion and the second image portion to display image (i.e., display surface 36) (column 5, lines 21 – 52).

Regarding claim 28, Roddy et al discloses (refer to figure 1 and 2a) wherein means for producing the first image portion includes means for displaying an image the

method comprising: producing a first image with a first pixel array oriented at a first angle, producing a second image portion with a second pixel array oriented at a second angle (i.e., spatial light modulator 30 (e.g., a modulator 30r, a modulator 30g, and a modulator 30b) have a pixel area 72, which is an array form, and each of the modulator set forth in an different angle as shown in figure 1) (column 5, lines 21 – 52).

Regarding claim 29, Roddy et al discloses, wherein means for producing the first image portion includes means for displaying a first color of the image (R) and means for producing the second image portion includes means for displaying a second color (G) and a third color of the image (B) (column 5, lines 31 – 36).

Regarding claim 30, Roddy et al discloses, means for producing a third image portion oriented at a third angle different from the first angle and the second angle, wherein means for combining the first image portion and the second image portion further includes means for combining the first image portion, the second image portion and third image portion to display image (i.e., a display surface 36) (column 5, lines 21 – 52).

Regarding claim 31, Roddy et al discloses, wherein means for producing the first image portion includes a first light modulator (30r) including a first pixel array oriented at the first angle, means for producing the second image portion includes a second light modulator (30g) including a second pixel array oriented at the second angle, and means for producing the third image portion includes a third light modulator (30b) including a third light modulator including a third pixel array oriented at the third angle (column 10, lines 1 – 9).

Regarding claim 32, Roddy discloses, wherein means for producing the first image portion includes means for producing a first color (R) image, means for producing the second image portion includes means for displaying a second color (G) of the image, and means for producing the third image portion includes means for displaying a third color (B) of the image (column 5, lines 31 – 36).

Allowable Subject Matter

4. Claims 2 – 4, 8, 11- 13, 15 – 17, 21, 24 – 26, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to show, the first angle includes an orthogonal angle and the second angle includes a non-orthogonal angle and the first non-orthogonal angle and the second non-orthogonal angle is different from the first non-orthogonal angle, first angle approximately zero degrees and approximately 30 degrees and the second angle includes approximately 45 degrees and the third angle includes approximately 60 degrees, and the first modulator receive a first image data from the first image portion and the second image light modulator is adapted to receive a second image data set for the second image portion and the first image data set is oriented at the first angle and the second image data set is oriented at the second angle.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The closest prior art

Gibbon et al (US 2003/0020809 A1) discloses a methods and apparatuses for superimposition of images.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammed Hasan whose telephone number is (571) 272-2331. The examiner can normally be reached on M-TH, 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on (571) 272- 2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read "Georgia Epps". The signature is fluid and cursive, with the first name "Georgia" and the last name "Epps" clearly distinguishable.

Georgia Epps
Supervisory Patent Examiner
Technology Center 2800